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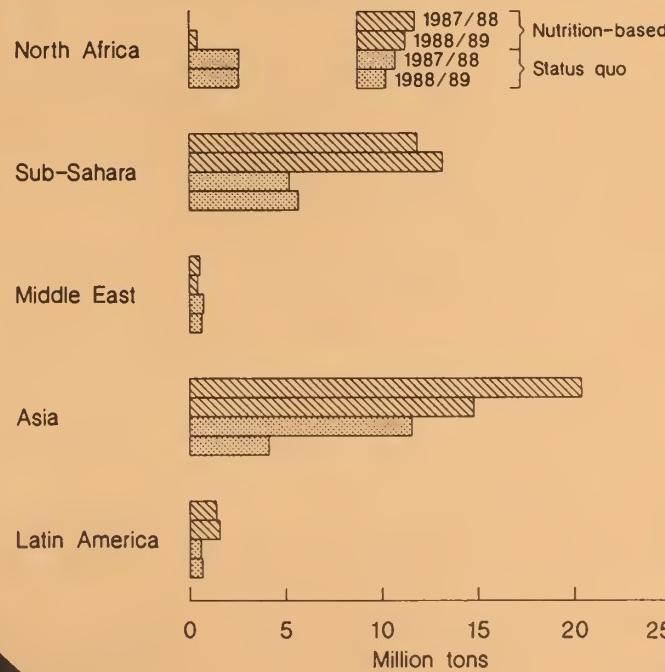
# World Food Needs and Availabilities, 1987/88: Spring Update

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## Additional Cereal Needs



## PREFACE

The food need levels reported are for the marketing years 1987/88 and 1988/89. As with any projection, assumptions must be made about future events. The assessment of food needs is based heavily upon projections of food crop production and financial ability to commercially import food. Food production is subject to the vagaries of weather and commercial import capacity is influenced by various international commodity and financial market conditions. Since neither weather nor international markets can be predicted with certainty, the food needs contained in this report are subject to change.

To reflect current crop conditions and import capacity, each country is reviewed quarterly and an updated food needs calculated for those countries judged to be facing conditions significantly different from those at the last assessment. For this reason, readers are encouraged to acquire current reports to keep abreast of changing food needs. Readers are further advised that both the methodology and the data used in the calculations are continually being refined by the Interagency Food Aid Analysis Working Group. This effort reflects the continuing commitment of the U.S. Government to respond more rapidly and adequately to the needs of those countries where food commodity assistance can be used for humanitarian purposes and in the mutual interests of the recipient country and the U.S. Government.

As a result of a Presidential Initiative in the summer of 1984, an Interagency Food Aid Analysis Working Group was established to provide the U.S. Government with the best possible food needs assessment for countries in the developing world. This report is prepared under the aegis of the Interagency Working Group.

As assessment of world food needs has serious implications for both donor and recipient countries, and it has the potential to influence the expenditure of many millions of dollars and affect the lives of many millions of people. It is, therefore, very important that readers clearly understand the issues that the Food Needs and Availabilities report addresses, and those it does not. This report is not an allocation or programming document, but an objective analytical assessment of food needs. Allocation and programming decisions are made in other forums and consider factors in addition to the food needs assessed in this report.

The assessment of food needs presented herein refers to the *amount of food needed* to cover the difference between a country's domestic food production plus its commercial import capacity, and either of the following two alternative measures of food need.

The *status quo* need is based on a country's recently achieved levels of food consumption, while the *nutrition-based* need is based on FAO's published information on minimum recommended dietary intake for each country. In addition, an estimate is made of the maximum absorbable imports if the highest historical levels of per capita total food use and carryover stocks were to be maintained. This assumes the food delivery systems in most food-aid-recipient countries have been "at capacity" at the highest historical level. None of these measures, taken individually, adequately reflect the range of objectives embodied within P.L. 480 legislation, nor does any one measure capture all factors considered in allocation and programming decisions.

**WORLD FOOD NEEDS  
AND  
AVAILABILITIES, 1987/88**

*SPRING UPDATE*

*MAY  
1988*

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## **ABSTRACT**

This update of *World Food Needs and Availabilities* reports a quarter-million-ton increase in 1987/88 North African cereal needs and a 1988/89 increase of nearly 1 million tons. The 1987/88 increase is in Morocco and that of 1988/89 is in Tunisia. Earlier reported food needs at the 1984/85 level of 5.2 million tons in Sub-Saharan Africa are reaffirmed, and needs in 1988/89 are anticipated to be slightly higher. However, assessed 1987/88 needs in South Asia, after adjustments to maintain stock levels, are reduced by 594,000 tons to 11.6 million and anticipated needs in 1988/89 are down sharply to 4.1 million tons. Crop estimates for 1988/89 assume commonly experienced crop losses due to drought and pests.

## FOREWORD

This is the third and final update to *World Food Needs and Availabilities, 1987/88*. Food needs assessments for 1987/88 and 1988/89 update those published in the August and November 1987 and February 1988 reports. Appendix A presents end-of-report-year assessed cereal needs for the 69 countries analyzed. The annual reports and supplements serve both the requirement of P.L. 480, as amended, that "global assessments of food production and needs" be submitted to the Congress, and the food needs analysis function of the Interagency Food Aid Analysis Working Group (IFAAWG). The IFAAWG is jointly funded by the USDA and AID through the Center of Development Information and Evaluation. Information provided through these reports to the Executive Branch and the Congress is employed along with other information in making tentative fiscal 1988 and 1989 food aid budget allocations. The main report and the supplements are also intended to provide detailed updates on food supplies and additional food needs on both a country-by-country and a world basis. This information is also useful to program and policy officials within donor governments and food-aid-recipient countries, analysts in international organizations and universities, and private agencies involved in food aid distribution.

This report presents two alternative measures of the overall food import requirements (commercial plus concessional) and the additional food needs of each country for 1987/88 and 1988/89. The *status quo* and *nutrition-based* assessments are based on two different sets of normative judgments and assumptions regarding the role of additional food and the considerations that might govern its use. The basic assumption underlying the *status quo* assessment is that additional food would be needed to prevent national food supplies, and hence total consumption, from falling below recent levels. Meeting status quo food needs would in principle stabilize national per capita use by filling shortfalls in domestic production and import capacity. The *nutrition-based* assessment addresses the continuing problem of undernourishment in many of the developing countries. The assumption is that additional food would be needed to close the gap between national food availabilities and an internationally accepted minimum nutritional standard. The *nutrition-based* estimates thus provide an aggregate measure of the nutritional gap, net of recipient countries' capacity to import food commercially. Calculation of zero *nutrition-based* food needs does not mean all citizens have a nutritionally adequate diet. In developing countries, poor nutrition is frequently the consequence of poor income distribution.

Status quo food needs assessments are stabilized by the method of estimating annual base period per capita food use. While the base moves forward annually, it does not fluctuate as sharply as would a simple average. Base period food use is calculated as the mean of the most recent 4 years that deviate less than one standard deviation from the mean of the most recent 8 years of record. The method is explained in the Methodological Notes section of this report.

The most current available weather, crop production, and financial data were employed in updating 1987/88 assessments and North and Southern Africa assessments for 1988/89. Other 1988/89 assessments are based on projected agricultural production, trade, and general economic trends. With new or changed crop information, production and additional food needs estimates change, sometimes sharply. The supplementary reports issued through the year provide users with assessments based on current weather and crop information.

Estimates of commercial import capacity assume the continuance of recent experience in debt payment, and thus the availability of foreign exchange for commercial food purchases. Significant changes in debt payment performance would alter food import capacity and additional food needs.

Neither the *status quo* nor the *nutrition-based* food needs measures deal specifically with the ability of a country's infrastructure to absorb food aid without overloading port and transportation capacity, and storage and distribution systems. The maximum absorbable food imports assessment frequently limits the quantity of *nutrition-based* needs that can physically be provided. The "gap" between maximum absorbable and *nutrition-based* food needs is one measure of the seriousness of a country's food problem. In a very real sense, the magnitude of achieving the financial and physical capacity to import food, or increasing domestic food production consistent with national food demand, is captured by this measure.

The import requirements and additional food need estimates in *World Food Needs and Availabilities* reports are based on national agricultural and economic data. These estimates assist financial and logistics planning by both donor and food aid recipient countries. It should be apparent, however, that additional food need levels are only a part of the calculus, and that delivering imported food to the communities that are deprived by national food production shortfalls or civil disturbances is a major undertaking. Factors bearing on success include local transportation and communications infrastructure, the financial status of both local and national public service agencies, and the availability of international financial support. The supplementary assessments of additional food needs issued through the year are intended to add to the information available so that food and complementary financial and technical assistance can be made available in a timely fashion.

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Food Needs Analysis Coordinator

## **ACKNOWLEDGMENTS**

Ray Nightingale directed the overall planning and preparation of the report and was assisted in coordination within the Economic Research Service by Rip Landes and Margaret Missiaen. Pat Scheid programmed modifications in country modules of the FNA model to incorporate targeted stocks adjustments, and operated the aggregations module and the document processing software. Suzanne Marks provided assistance in programming and software maintenance.

The Economic Research Service economists providing analysis for the report included: Richard Brown, Rip Landes, Margaret Missiaen., John Parker, Stacey Rosen, Leslie Ross, Pat Scheid, Mark Smith, and Nydia Suarez. Renata Penn assisted in data entry and Lori McPherson in typing.

Interagency Food Aid Analysis Working Group (IFAAWG) members contributed in food needs assessment workshops. The Agency for International Development cleared the report. Tom Ross of AID and Bruce Cogill, Jeffery Marzilli, and Michele McNabb from the AID/Food Needs Assessment Project assisted in the review. Priscilla Andrew and Dee Linse participated in working sessions and reviewed the report for the Foreign Agricultural Service, USDA. Ross Quan participated in working sessions and reviewed the report for the Department of State.

Reviewed and approved by the World Agricultural Outlook Board.

## SUMMARY

The detailed country tables and narratives in this report include information on the quantities and dollar values of assessed additional food needs, including the need for cereals, pulses, vegetable oils, and dairy products. This summary covers just additional need for cereal, the principal commodity employed in international food aid. Food needs assessments for 1987/88 and 1988/89 are based on information available in April, 1988. This means that cereal crop production estimates for 1988/89 are primarily based on extrapolations from historical production trends. Allowances are made for known prospects for expanded production of crops based on planned changes in area cropped or on current increases in yield. But the impact of weather on 1988/89 crops is as yet largely unknown and assessments through the year will certainly reveal large changes for some countries/regions. The exceptions are in North Africa and Southern Africa where the 1988 crops have been sown.

### *Assessed cereal needs in 1987/88*

Status quo cereal shortfalls for 1987/88 consumption requirements in 69 developing countries are estimated at 27.2 million tons, down 468,000 from the February assessment, but still higher than any year of record. With stock adjustments, the shortfall is estimated at 20.7 million tons, 400,000 tons below the February assessment, but also a record high. Despite some reduction in assessed needs in South Asia, the primary cause for the high 1987/88 levels of status quo cereal requirements has been lower production in that region. Assessed status quo needs after stock adjustments in India are down 590,000 but are still 7.3 million tons.

In Sub-Saharan Africa, cereal shortfalls for consumption and after stock adjustments are unchanged from the February assessment. Status quo needs after stock adjustments remain at the 1984/85 level of 5.2 million tons. Shortfalls in Ethiopia (1.6 million), Sudan (678,000) and Mozambique (554,000) make up 55 percent of the total. Assessed needs in these countries have been high since August, and donors have responded. However, civil conflict in each country impedes food assistance deliveries and large populations continue to be at risk.

Drought, compounded by the locust plague, has increased 1987/88 North Africa needs by a quarter-million tons.

Cereal needs to meet nutrition-based consumption requirements after stock adjustments in the 69 countries are down 1.5 million tons from the February assessment. A decrease of 1.5 million in India was offset by a small increase in Nepal. The maximum absorbable cereals in South Asia is 15.7 million, and overall maximum absorbable cereals is 29 million tons.

### *Assessed cereal needs in 1988/89*

Status quo cereal shortfalls for 1988/89 in the 69 countries are an estimated 10.8 million tons, 839,000 above the February assessment. But assessed needs are sharply down from the current 1987/88 assessment due to an anticipated recovery of production in South Asia. Stock adjustments bring the need to 13.7 million tons. The drought and locust plague have increased North Africa needs for consumption by 986,000 tons to 2.5 million. Needs in South Asia and Central America are reduced by 58,000 and 89,000 tons, respectively. The 1988/89 needs assessment for Sub-Saharan Africa is unchanged from February.

Nutrition-based needs for 1988/89 are assessed at 26.9 million tons, up 1.2 million tons from the February assessment. The locust plague has generated a 435,000-ton cereal need in Tunisia, and nutrition-based needs in South Asia are up by 771,000 tons to 11.9 million. Stock adjustments increase South Asia needs by 1.9 million tons. However, maximum absorbable additional cereal needs in South Asia are only 6.7 million tons.

*Additional cereal needs to support consumption, stocks adjustments, and maximum absorbable cereal needs*

Region	Status quo		Nutrition-based		Maximum 1/
	Consumption	Consumption + stocks	Consumption	Consumption + stocks	
----- Thousand tons (cereal equivalent) 2/ -----					
1984/85 Total	11,745	13,450	25,767	27,472	3/
1985/86 Total	8,811	9,503	20,253	21,036	15,014
1986/87 4/ Total	6,660	7,851	17,473	18,105	15,001
1987/88 Total	27,197	20,707	41,431	34,176	29,062
Africa	8,886	7,833	13,729	11,867	11,404
North Africa	2,204	2,615	43	0	2,615
Sub-Saharan Africa	6,682	5,218	13,686	11,867	8,789
West Africa	784	731	1,996	1,802	1,609
Central Africa	370	382	502	514	514
East Africa	3,922	2,988	7,844	6,893	4,894
Southern Africa	1,606	1,117	3,344	2,658	1,772
Middle East	686	743	481	538	743
Asia	17,102	11,557	25,943	20,388	15,684
South Asia	16,070	10,523	25,068	19,521	14,650
Southeast Asia	1,032	1,034	875	867	1,034
Latin America	523	574	1,278	1,383	1,231
Caribbean	87	93	61	66	93
Central America	244	289	589	632	592
South America	192	192	628	685	546
1988/89 Total	10,775	13,683	26,853	30,409	21,789
Africa	6,746	8,274	12,136	13,633	11,734
North Africa	2,520	2,592	435	438	2,592
Sub-Saharan Africa	4,226	5,683	11,701	13,194	9,142
West Africa	391	656	1,615	1,915	1,568
Central Africa	371	380	506	515	515
East Africa	2,483	3,245	6,698	7,460	4,693
Southern Africa	981	1,401	2,882	3,304	2,366
Middle East	623	637	415	429	637
Asia	2,832	4,120	12,825	14,784	8,028
South Asia	1,793	2,784	11,927	13,844	6,692
Southeast Asia	1,039	1,336	898	940	1,336
Latin America	574	652	1,477	1,564	1,387
Caribbean	87	87	64	64	87
Central America	131	138	476	493	439
South America	356	427	937	1,007	861

1 / Imports consistent with maximum recent levels of consumption and food stocks.

2 / Major cereals, and the cereal equivalent of shortfalls in roots and tubers.

3 / Maximum absorbable needs not computed in 1984/85.

4 / Final 1986/87 assessment, May 1987 World Food Needs and Availabilities report.

Assessed cereal needs are lower in 1988/89 in relation to cereals production and use. Status quo additional needs in 1988/89 in the 69 countries are down 3.1 percent in relation to production and 2.1 percent in relation to use. Nutrition-based needs decrease by 2.4 and 1.3 percent in relation to production and use, respectively. But optimism at this date is premature. The May 1987 status quo assessment for 1987/88, with stock adjustments, was 6.7 million tons, 2.9 of which was in Sub-Saharan Africa. The current assessment for 1987/88 is for 20.7 million tons, 5.2 of which is in the Sub-Sahara. The assessment for 1988/89 will change as the crop year progresses, and is likely to change dramatically for some countries/regions.

*Additional cereal needs in relation to production and use*

	1987/88	1988/89
1,000 tons		
Cereals production	269,252	296,370
Total use in cereal equivalent		
Status quo	359,685	368,665
Nutrition-based	371,483	383,042
Additional status quo needs	20,707	13,683
Percent of production	7.7	4.6
Percent of use	5.8	3.7
Additional nutrition-based needs	34,176	30,409
Percent of production	12.7	10.3
Percent of use	9.2	7.9

## **FOOD AID AVAILABILITIES AND OUTLOOK**

The Food and Agriculture Organization (FAO) estimates world cereal aid shipments in the July 1987-June 1988 year to be about 10.5 million tons, down almost 15 percent from the 1986/87 year. However, this is still above the 1974 World Food Conference 10-million-ton target for cereal aid shipments. The United States is the principal donor, estimated to provide 65 percent of the total, followed by the European Community (EC) with 15 percent, Canada, 10 percent, and Japan and Australia, about 3 percent each.

The FAO reports that pledges to the UN/FAO World Food Program's 1987-88 biennium were a little less than \$1.1 billion as of December 1987. This compares with a target of \$1.4 billion.

As of January 1988, pledges to the World Food Program's International Emergency Food Reserve (IEFR) in 1988 were nearly 180,000 tons of cereals and a little less than 20,000 tons of non-cereal commodities. The annual target for the IEFR is 500,000 tons of cereals, which was exceeded in 1987 by about 140,000 tons. In addition, a variety of other commodities, such as vegetable oils, pulses, and powdered milk, were also donated in 1987 and have again been donated in 1988.

Seventy-nine FAO/WFP emergency operations were approved in 1987. Of these, about 70 percent was for refugees, returnees and displaced persons, while the remainder was for victims of drought or sudden natural disasters.

## ADDITIONAL FOOD NEEDS OF LOW-INCOME COUNTRIES

### Measures of Additional Food Needs--Conceptual Framework

The financial indicators noted above and the food data described below are used to generate two alternative measures of food needs in addition to estimated commercial import capacity. Countries must choose between making extraordinary commercial purchases and seeking food aid to fill this gap. However, extraordinarily large commercial imports, particularly in successive years, would be at the cost of other imports, including imports of goods required for economic development and growth. In addition, a measure is computed of the maximum quantities of commodities which countries could feasibly import. Each measure highlights a different aspect of the food problem in the low-income countries, and a different notion of the role aid might play in easing the problem. For a more detailed discussion, see the section entitled "Methodological Notes."

The first measure, termed "status quo," estimates the additional food needed to maintain per capita use of food staples at levels reported in recent years. Per capita food use is calculated as the mean of the most recent 4 years that do not deviate more than one standard deviation from the mean of the most recent 8 years. This per capita food use is called base-use in the following descriptions of tables and elsewhere in this report. The data years employed in calculations for this report are 1979/80 through 1986/87. No provision is made for improving substandard diets, for reducing allocations to countries where diets are relatively good, or for correcting problems related to the uneven distribution of food across or within countries. Because status quo estimates support a level of per capita availability that has been achieved in the past, in most cases they can be considered to be consistent with the capacity of countries to absorb food imports.

The second measure, termed "nutrition-based," estimates the additional food required to raise per capita caloric intake to the levels associated with FAO's recommended minimum diet. This measure is based on the notion that food aid might be utilized in a way consistent with nutritional need, rather than to maintain a recent, possibly substandard, status quo. In this sense, the nutrition-based measure might be viewed as a maximum level of additional food need, but not necessarily consistent with a country's ability to absorb food imports.

The measure of food import feasibility called "maximum absorbable imports" provides one basis for assessing what maximum quantity of additional food might be imported toward meeting large nutrition-based food needs, or possibly for building stocks in a period of ample world food supplies. The implicit assumption is that the food delivery systems of many of the countries involved have been fully "loaded" by past high levels of consumption. In addition, the highest level of stocks maintained over the previous 8 years is assumed, in the absence of better information, to be the largest level that can currently be maintained. The estimate is intended to provide a crude measure of the amount of food that can be physically absorbed. This level may then be used to scale back nutrition-based additional food need estimates that may be beyond the physical limits of a country's transportation, distribution, and storage capabilities.

While the status quo and nutrition-based methods differ in the estimation of requirements, they have a common structure. In each, an estimate of every country's domestic supplies of food staples is subtracted from an estimate of staple food requirements to arrive at a quantity estimate of import requirements. Import requirements are then totaled for food groups, based on assumptions regarding their substitutability. An estimate of a country's capacity to commercially import food in each category is then subtracted from the import requirement to arrive at an estimate of additional food needs. Estimated import unit values for each food group are used to generate import requirements, and additional food needs estimates in both quantity and value terms.

Several factors affecting additional food needs in a country are not addressed in these estimates. First, food distribution problems--both geographical and across income or population groups--are overlooked by the use of national-level food availability and country average food requirement measures. These can mask acute shortages in specific places within a country as well as uneven distribution of food across population groups. However, measuring the unevenness of food distribution is extremely difficult, because data are not available. Acute problems of this nature are treated qualitatively in the country narratives.

Second, additional food needs are estimated without reference to a country's food and agriculture policies and current performance. Although these issues figure importantly in a country's choice between exceptional commercial food purchases and requesting concessional food imports, a comprehensive consideration of them is beyond the scope of this report.

## Introduction to Regional and Country Narrative Tables

The following section reports on the food and financial situation and outlook for 69 countries in Africa, the Middle East, Asia, and Latin America. The materials summarize events during the 1986/87 local marketing year (generally July-June) and project food and financial conditions for 1987/88 and 1988/89.

Data shown in the tables must be interpreted with caution. Forecasts of food production, population, and financial conditions for 1987/88 and 1988/89 represent ERS's forecasts of what is likely to happen during those years. But 1987/88 and 1988/89 estimates of all other items--stocks, use, import requirements, and additional needs--are not forecasts of what is likely to happen; they are estimates derived using the status quo and nutrition assumptions summarized in the previous section, and explained in detail in the "Methodological Notes" section of this report. Additional food needs calculations are also subject to a number of adjustments detailed in the Methodology section.

In each of the regional and country tables, any quantity less than 500 tons and any value less than \$500,000 is shown as zero.

### *Tables entitled "[Region] basic food data"*

These tables provide major cereal supply and utilization data and population for regions for 1980/81-1986/87 and for forecast years (1987/88-1988/89).

### *Tables entitled "[Region] cereal use, additional food needs to support consumption, and stock adjustment"*

These tables deal only with 1987/88-1988/89 country estimates aggregated for the regions. The explanation for column headings is the same as for column headings in the country tables, as described below.

### *Tables Entitled "[Country] basic food data"*

These tables provide food staple supply and utilization data for 1980/81-1986/87 and for forecast years (1987/88 and 1988/89). An explanation of each column heading follows:

1. Actual or forecast production--actual production for the individual staples for 1980/81-1986/87 and forecast production for 1987/88 and 1988/89.
2. Net imports--actual net imports during 1980/81-1986/87. Net import figures for forecast years are not supplied. Instead, estimated import requirements based on status quo and nutrition-based approaches are provided in the next set of tables.
3. Nonfeed use, 1980/81-1986/87.
4. Feed use--actual feed use, 1980/81-1985/86 and targeted feed use for 1987/88 and 1988/89. Targeted feed use is calculated to maintain per capita feed use at base-use levels. The same base-use level of feed use is employed in the status quo and nutrition-based estimates of aid needs.
5. Beginning stocks--actual stocks for 1980/81-1986/87, where reliable stocks data are available. Initial calculations of status quo and nutrition-based import and aid needs are done by maintaining the ending stocks for 1986/87 (beginning stocks 1987/88) constant throughout the forecasting period. Import requirements for building food security stocks are calculated subsequently for the countries for which stock data are available.
6. Per capita total use--actual per capita human consumption and livestock feed use for 1980/81-1986/87.
7. Commodity coverage--the food staples included for each country.
8. Share of diet--each staple's share of total daily caloric intake, and the share of total daily caloric intake covered by the food staples analyzed. Data are drawn from the 1979-81 FAO Food Balance Sheets with adjustments made in some cases for differences in FAO or ERS estimates of feed use or more recent significant changes in a staple's share of the diet.

### *Tables Entitled "Import requirements for [Country]"*

These tables deal only with 1987/88 and 1988/89 estimates. An explanation of each column heading follows:

1. Forecast domestic production--data are drawn from the "basic food data" tables.
2. Total use, status quo--total amount of a staple needed to maintain per capita human consumption at the base-use level and feed use at the targeted level.
3. Total use, nutrition-based--the amount of a staple needed to support FAO recommended minimum daily per capita caloric intake levels and targeted feed use.
4. Import requirements, quantity, status quo--the imports of a staple required to maintain per capita consumption, and also to achieve the targeted levels of feed use with no change in stocks, as shown in the basic food data table. These estimates are calculated for each staple by subtracting forecast domestic production from status quo-based total use.

Subtotals for each commodity group are calculated by summing the import requirements for individual commodities. Calculated surpluses (negative import requirements) for individual commodities within groups are subtracted from deficits in other commodities because foods are assumed to be substitutable within groups. Noncereals such as roots and tubers are converted to caloric wheat equivalents before being summed. Negative subtotals are shown as zeros because these calculated surpluses are assumed not to be substitutable elsewhere in the diet.
5. Import requirements, quantity, nutrition-based--the imports of a staple required to support recommended minimum per capita caloric intake, and targeted feed use, as no change in stocks is shown in the basic food data tables. These estimates are calculated by subtracting forecast domestic production from nutrition-based total use. Totals for each commodity group by year are computed as described in (4) above.
6. Import requirements, maximum--the largest quantity that could be managed if countries wished to take the greatest advantage of low grain prices to improve stocks or to improve on the nutritional status of the population.

### *Tables Entitled "Financial indicators for [Country], actual and projected"*

These tables give historical data and forecasts for four key financial indicators: year-end international reserves, merchandise exports, merchandise imports, and debt-service obligations. All data are on a calendar year basis and are compiled from a variety of sources, including the World Bank, the International Monetary Fund, Chase Econometrics, country sources, and ERS estimates.

### *Tables Entitled "Additional food needs for [Country], with stock adjustment and as constrained by maximum absorbable imports"*

These tables provide calculations of cereal import requirements and food needs in excess of normal commercial imports resulting from consumption requirements and from estimates of cereal stock adjustments required for food security purposes. The estimated stock increment (quantity and value) is added to import requirements and additional food needs to support consumption to arrive at total import requirements and additional food needs. The stock increment is shown only when it results in altered total additional food needs (i.e. when not offset by negative additional food needs for consumption). For a discussion of how stock increment estimates are calculated, see "Methodological Notes".

1. Commercial import capacity--an estimate of the amount of food within each group that a country can afford to import commercially without reducing below historical levels the share of its available foreign exchange used for non-food imports. Countries are assumed in forecast years to spend the same proportion of available foreign exchange on commercial food imports as in the base period. The measure is sensitive to historical and projected levels of foreign exchange holdings, total merchandise imports and exports, and debt service. The measure is provided in both quantity and value, using the same country-specific estimates of unit import costs as in the import requirements estimate.
2. Additional food needs, quantity--the estimated quantity of additional food needed in each commodity group to support either the status quo or nutrition-based use level and targeted stock and feed use levels. Negative needs are shown as zero.
3. Additional food needs, value--the estimated value of the additional food needed in each commodity group to maintain either status quo consumption or nutrition-based consumption and targeted stock and feed use levels.

## Africa

### North Africa

#### *North Africa basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
<u>1,000 tons</u>				<u>Thousand</u>	<u>Kilos</u>
Major cereals					
1980/81	12,893	3,336	9,303	69,169	322
1981/82	10,679	3,257	11,091	71,074	311
1982/83	13,734	2,953	9,351	73,508	321
1983/84	12,262	2,435	11,821	75,502	319
1984/85	12,470	2,459	12,770	77,546	324
1985/86	14,789	2,582	11,810	79,674	330
1986/87	15,473	2,865	12,439	81,915	326
1987/88	15,017	4,065		83,918	
1988/89	14,916	4,065		86,078	

The absence of a column entry in any table means such entry is inapplicable.

#### *North Africa cereal use, additional food needs to support consumption, and stock adjustment*

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent						
Consumption						
1987/88	26,944	23,694	2,204	333	43	5
1988/89	27,641	24,255	2,520	347	435	53
Stock adjustment						
1987/88			411	67	0	0
1988/89			72	11	3	0
Total						
1987/88			2,615	400	0	0
1988/89			2,592	358	438	53
Maximum absorbable						
Cereal equivalent						
1987/88			2,615	400	0	0
1988/89			2,592	358	438	53

## Morocco

The earlier outlook for a strong recovery in wheat and barley output has been scaled back because of unfavorable weather and attacks by locusts. Rainfall during the winter was favorable for wheat and barley, and in February it appeared that the harvest would rebound, increasing by 50 percent over the drought-damaged 1987 harvest of 4.2 million tons. Crop damage from locusts reduced crop expectations, but unless the damage worsens, grain production, while far below the record 1986 harvest of 6.6 million tons, may still show some gains over 1987.

Status quo food import needs are estimated at 2.7 million tons in 1987/88 because of the setback in 1987 wheat production to 2.4 million tons, a fourth below the 1986 level. Status quo cereal import needs are estimated to decline to about 1.7 million tons in 1988/89 because of the partial recovery projected in wheat production. However, 1988/89 import needs could be altered substantially if locust damage turns out to be significantly more or less than currently expected. Nutrition-based import needs are projected to remain slightly below status quo needs in both 1987/88 and 1988/89, indicating that current average per capita intake is slightly above that needed to meet FAO minimum caloric intake requirements. Food grain stocks accumulated to record levels by the end of 1986/87, primarily because of the record barley crop in that year. Downward stock adjustments offset a substantial portion of 1987/88 import requirements, and actual stocks on hand at the beginning of 1988/89 are estimated at a more normal level of about 900,000 tons.

Morocco's debt service payments rose to \$1.9 billion in 1987, double the 1985 level. A slight increase to about \$2 billion is expected for 1988, even with some rescheduling of payments on the foreign debt that has increased to about \$17 billion. Exports of phosphates and citrus fruit are expected to remain steady in value in 1988, while total import needs rise. This will put heavy pressure on international reserves, which may decline to less than half the 1987 level and constrain the availability of foreign exchange for commercial food imports.

Despite production set backs and rising foreign debt, 1987/88 additional food needs, after stock adjustments, are estimated at only about 150,000 tons according to the status quo estimates, and zero according to the nutrition-based estimates. Additional food needs are expected to fall to zero in 1988/89 using both approaches, unless locust and weather damage are more severe than currently expected.

### *Morocco basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
----- 1,000 tons -----								
Major cereals						Kilos		Percent
1980/81	4,354	580	2,220	5,740	778	317	Wheat	42.8
1981/82	2,021	636	2,655	4,122	559	222	Corn	3.5
1982/83	4,764	631	1,470	5,519	898	298	Barley	15.9
1983/84	3,457	448	2,296	4,868	1,075	269	Total	62.2
1984/85	3,658	258	2,652	5,044	1,088	272		
1985/86	4,904	436	2,190	5,590	1,315	299		
1986/87	6,596	625	1,885	5,577	1,645	303		
1987/88	4,210	1,884						
1988/89	5,350	1,884						

### *Import requirements for Morocco*

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
----- 1,000 tons -----						
Major cereals						
1987/88	4,210	6,924	6,740	2,714	2,530	3,476
1988/89	5,350	7,088	7,075	1,738	1,725	2,518

*Financial indicators for Morocco, actual and projected*

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
----- Million dollars -----						
1980	3,270	3,770	1,175	399	2,095	22
1981	3,084	3,840	1,274	230	1,810	32
1982	2,945	3,815	1,350	218	1,595	26
1983	2,879	3,301	1,188	107	1,691	21
1984	3,026	3,600	722	49	2,304	20
1985	3,180	3,510	967	115	2,213	16
1986	3,619	3,480	1,442	211	2,177	
1987	3,620	3,760	1,900	411	2,001	19
1988	3,760	3,920	2,000	150	1,774	19

*Additional food needs to support consumption for Morocco, with stock adjustment*

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
Cereal equivalent						
Consumption						
1987/88	2,488	287	227	26	43	5
1988/89	2,306	255	0	0	0	0
Stock adjustment						
1987/88			(78)	(9)	0	0
1988/89			0	0	0	0
Total						
1987/88			149	17	0	0
1988/89			0	0	0	0
Maximum absorbable						
Cereal equivalent						
1987/88			149	17	0	0
1988/89			0	0	0	0

### Tunisia

After a strong rebound to a near-record 1.9 million tons in 1987/88, food grain production is projected to plunge 80 percent to under 400,000 tons in 1988/89. The worst drought in decades had already decimated much of Tunisia's winter crops of wheat and barley before the locust problem appeared this spring. The autumn and winter were very dry, and modest rainfall in March was too little, too late. Wheat production is expected to decline by more than 1 million tons, from 1.36 million tons in 1987 to an estimated 300,000 tons in 1988. The barley crop for 1988 is estimated at 80,000 tons, only a seventh of the 1987 level.

Status quo cereal import requirements, which fell sharply in 1987/88 because of good harvests, are projected to quadruple to 2.1 million tons in 1988/89. Nutrition-based import needs are projected to jump sevenfold to about 1.5 million tons. Food grain stocks at the beginning of 1988/89 are not expected to be sufficient to meet more than 100,000 - 200,000 tons of import needs. The drought has also created unusually high import needs for some other commodities, including dry beans and peas.

Tunisia's overall economy was showing good signs of progress in 1987, with a recovery in the value of petroleum exports and greater foreign exchange earnings from exports of industrial products. Efforts to curb imports in accordance with advice from international lenders were successful in slowing imports, and foreign exchange reserves increased despite substantially higher debt service payments. Total foreign debt reached \$7.3 billion in 1987, double the 1980 level. Much of the borrowing was to maintain high food consumption levels through greater imports, and to expand industrial capacity. Diversification of the economy, with less than a

fourth of the GNP now coming from agriculture, will limit the overall damage to national income because of the drought and locusts. However, slowed export growth and larger imports, largely to meet shortfalls stemming from the drought, are likely to lead to some deterioration of the balance of payments in 1988. Debt service payments are currently forecast to rise to nearly \$1 billion, contributing to a drop in foreign reserves unless some debt is rescheduled.

Drought-reduced harvests and constrained commercial export capacity are expected to boost status quo additional food needs from zero in 1987/88 to nearly 1 million tons in 1988/89. Nutrition-based needs in 1988/89 are estimated to be lower at about 435,000 tons. However, it is likely that a drawdown of food grain stocks and emergency allocations of foreign exchange to commercial food imports can offset about 250,000 tons of these additional food needs.

#### Tunisia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
<u>1,000 tons</u>								
Major cereals							<u>Kilos</u>	<u>Percent</u>
1980/81	1,166	211	816	1,590	402	307	Wheat	52.9
1981/82	1,234	201	1,142	1,730	627	354	Barley	1.9
1982/83	1,256	220	864	1,741	469	323	Corn	0.0
1983/84	922	130	1,283	1,699	526	317	Total	54.9
1984/85	1,024	110	1,100	1,707	502	307		
1985/86	2,067	25	852	1,791	873	359		
1986/87	607	280	1,542	1,812	478	302		
1987/88	1,898	139						
1988/89	381	139						

#### Import requirements for Tunisia

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
<u>1,000 tons</u>						
Major cereals						
1987/88	1,898	2,422	2,105	524	207	1,028
1988/89	381	2,475	1,924	2,094	1,543	2,606

#### Financial indicators for Tunisia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
<u>Million dollars</u>						
1980	3,296	3,823	427	590	2,869	9
1981	3,616	4,117	520	536	3,096	8
1982	3,467	4,169	485	607	2,982	7
1983	3,292	3,906	569	567	2,723	9
1984	3,101	3,913	650	406	2,451	10
1985	2,970	3,606	676	233	2,294	8
1986	3,101	3,765	793	305	2,308	
1987	3,150	3,760	930	525	2,371	9
1988	3,300	3,890	981	215	2,147	9

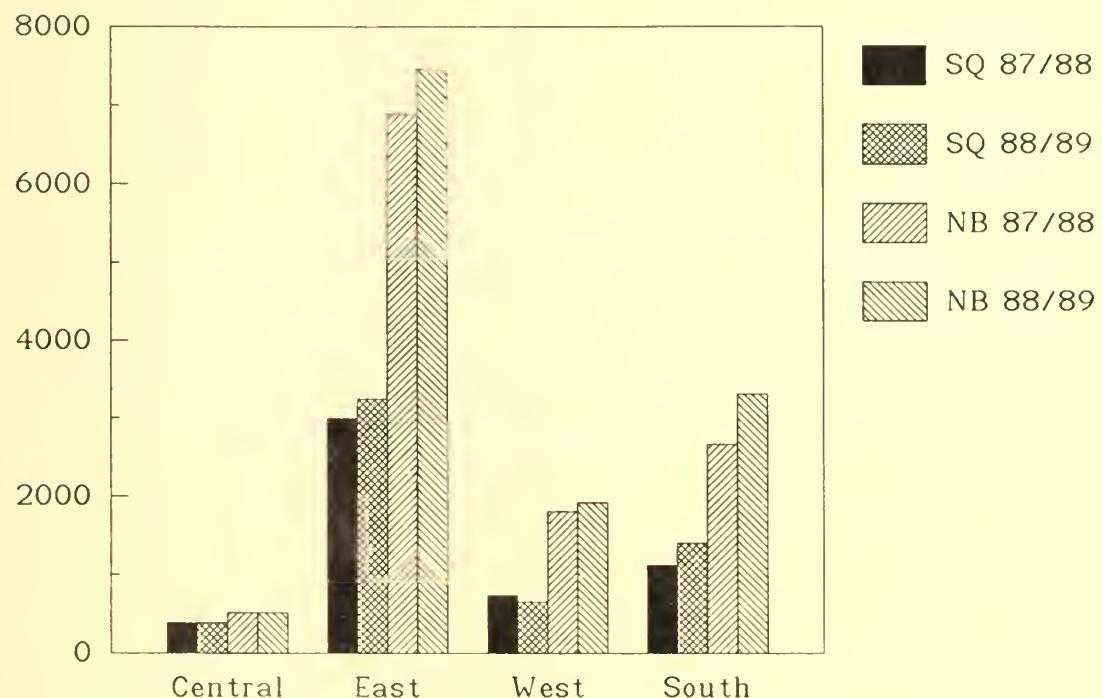
*Additional food needs to support consumption for Tunisia, with stock adjustment*

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
Cereal equivalent						
Consumption						
1987/88	1,170	148	0	0	0	0
1988/89	1,108	134	986	120	435	53
Stock adjustment						
1987/88			0	0	0	0
1988/89			3	0	3	0
Total						
1987/88			0	0	0	0
1988/89			989	120	438	53
Maximum absorbable						
Cereal equivalent						
1987/88			0	0	0	0
1988/89			989	120	438	53

## SUB-SAHARAN AFRICA

### Additional Cereal Needs, 87/88-88/89

Thousand tons



\*Cereal equivalent exceeding production and imports, with stock adjustment.

## West Africa

### West Africa basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
----- 1,000 tons -----				<u>Thousand</u>	<u>Kilos</u>
<b>Major cereals</b>					
1980/81	8,110	481	2,079	68,457	149
1981/82	8,719	451	2,089	70,086	152
1982/83	8,514	590	2,287	71,901	152
1983/84	8,125	481	2,604	74,333	144
1984/85	7,731	537	2,612	76,774	136
1985/86	10,363	448	2,025	78,962	152
1986/87	10,889	829	1,970	81,408	157
1987/88	10,043	939		83,770	
1988/89	10,852	939		86,145	

### West Africa cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent consumption						
1987/88	17,213	18,915	784	130	1,996	347
1988/89	17,710	19,590	391	66	1,615	275
Stock adjustment						
1987/88			(49)	(7)	(57)	(9)
1988/89			281	41	300	44
Total						
1987/88			731	122	1,895	330
1988/89			656	105	1,915	319
Maximum absorbable						
Cereal equivalent						
1987/88			731	122	1,661	289
1988/89			656	105	1,568	262

## Central Africa

### *Central Africa basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
----- 1,000 tons -----				<u>Thousand</u>	<u>Kilos</u>
Major cereals					
1980/81	1,232	59	766	37,842	53
1981/82	1,241	60	690	38,818	50
1982/83	1,258	58	715	40,044	49
1983/84	1,302	51	734	41,071	50
1984/85	1,343	17	766	42,091	50
1985/86	1,363	33	836	43,265	51
1986/87	1,387	40	848	44,453	50
1987/88	1,360	40		45,689	
1988/89	1,455	40		46,966	

### *Central Africa cereal use and additional food needs*

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent consumption						
1987/88	8,995	9,090	370	62	502	83
1988/89	9,247	9,344	371	59	506	80
Stock adjustment						
1987/88			12	2	12	2
1988/89			9	2	9	2
Total						
1987/88			382	64	514	85
1988/89			380	61	515	82

## East Africa

### East Africa basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
----- 1,000 tons -----				Thousand	Kilos
Major cereals					
1980/81	15,306	1,077	1,798	121,603	141
1981/82	16,831	1,017	1,659	125,707	143
1982/83	16,899	1,512	1,251	129,771	140
1983/84	15,671	1,460	1,838	133,559	135
1984/85	13,201	992	4,170	136,749	124
1985/86	18,718	1,405	2,291	142,212	140
1986/87	19,137	2,550	1,112	146,683	136
1987/88	16,280	2,817		151,469	
1988/89	18,326	2,817		156,417	

East Africa cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent consumption						
1987/88	27,445	31,597	3,922	567	7,844	1,228
1988/89	28,355	32,622	2,483	356	6,698	1,031
Stock adjustment			(934)	(123)	(951)	(125)
1987/88			762	107	762	107
Total						
1987/88			2,988	444	6,893	1,103
1988/89			3,245	462	7,460	1,138
Maximum absorbable						
Cereal equivalent						
1987/88			2,988	444	4,894	774
1988/89			3,245	462	4,693	717

## Southern Africa

### *Southern Africa basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
----- 1,000 tons -----				<u>Thousand</u>	<u>Kilos</u>
Major cereals					
1980/81	6,273	302	1,598	44,064	178
1981/82	7,853	317	1,249	45,326	178
1982/83	6,590	1,369	904	46,650	160
1983/84	5,562	1,381	1,108	48,082	158
1984/85	6,173	447	1,673	49,432	153
1985/86	8,265	729	1,099	50,876	159
1986/87	7,671	1,989	1,027	52,430	155
1987/88	5,835	2,538		54,045	
1988/89	6,671	2,538		55,721	

*Southern Africa cereal use, additional food needs to support consumption, and stock adjustment*

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent consumption						
1987/88	9,924	11,585	1,606	218	3,344	455
1988/89	10,236	12,058	981	130	2,882	377
Stock adjustment						
1987/88			(957)	(119)	(957)	(119)
1988/89			421	52	421	52
Total						
1987/88			1,117	159	2,658	371
1988/89			1,402	182	3,304	430
Maximum absorbable						
Cereal equivalent						
1987/88			1,117	159	1,772	245
1988/89			1,402	182	2,366	303

## The Middle East

### Middle East basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
----- 1,000 tons -----				<u>Thousand</u>	<u>Kilos</u>
Major cereals					
1980/81	956	254	1,105	9,964	215
1981/82	945	170	1,323	10,135	223
1982/83	880	173	1,430	10,316	221
1983/84	488	203	1,447	10,514	192
1984/85	524	116	1,652	10,737	201
1985/86	733	131	1,710	11,001	222
1986/87	755	132	1,775	11,225	225
1987/88	769	132		11,225	
1988/89	791	132		11,454	

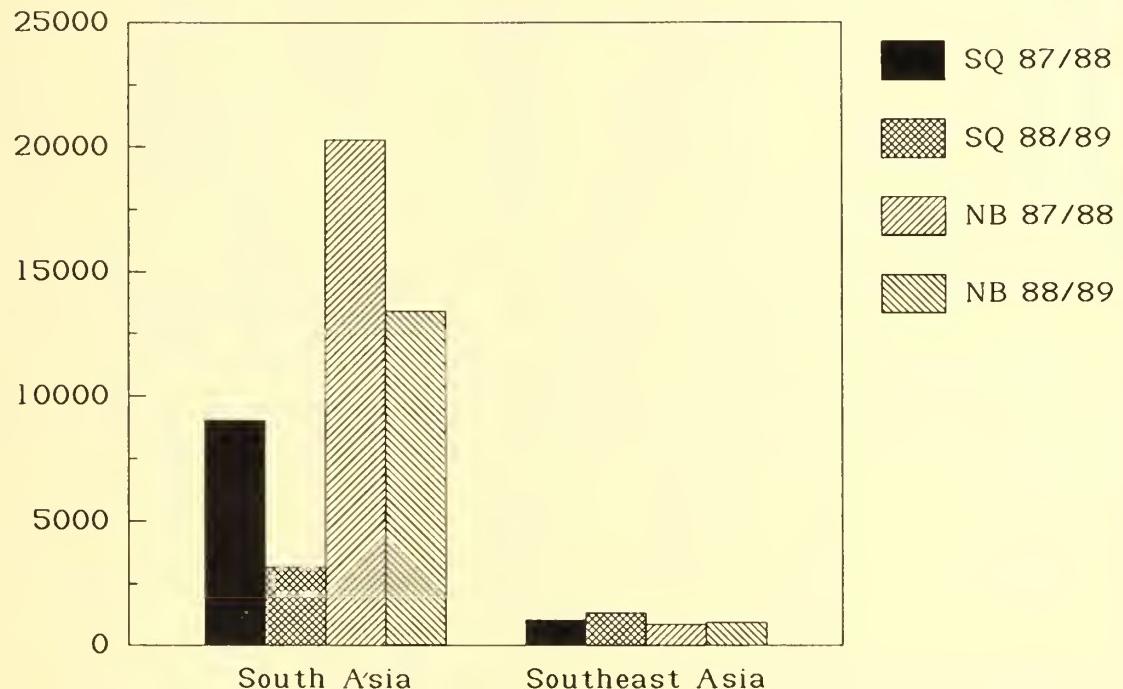
### Middle East cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent consumption						
1987/88	2,475	2,269	686	100	481	69
1988/89	2,524	2,316	623	86	415	56
Stock adjustment						
1987/88			57	9	57	9
1988/89			14	2	14	2
Total						
1987/88			743	109	538	78
1988/89			637	88	429	59

**Asia**

**ASIA**  
Additional Cereal Needs, 87/88-88/89 \*

Thousand tons



\*Cereal equivalent exceeding production and imports, with stock adjustment.

## South Asia

### South Asia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
----- 1,000 tons -----					
Major cereals				Thousand	Kilos
1980/81	151,832	20,032	399	906,091	170
1981/82	159,741	17,926	3,158	926,031	174
1982/83	151,408	19,822	5,788	947,382	164
1983/84	178,296	21,280	5,050	969,559	182
1984/85	175,437	28,642	3,423	991,723	175
1985/86	174,448	33,551	2,194	1,013,376	175
1986/87	177,613	32,912	1,175	1,035,542	176
1987/88	158,444	28,941		1,058,007	
1988/89	180,620	28,941		1,080,714	

### South Asia cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent						
Consumption						
1987/88	186,563	196,711	16,070	2,796	25,069	4,360
1988/89	190,808	203,321	1,792	268	11,927	1,945
Stock adjustment						
1987/88			(5,547)	(990)	(5,547)	(990)
1988/89			994	140	1,949	303
Total						
1987/88			10,523	1,805	19,521	3,370
1988/89			2,784	408	13,845	2,243
Maximum absorbable						
Cereal equivalent						
1987/88			10,523	1,805	14,649	2,529
1988/89			2,784	408	6,693	1,054

## Nepal

Total cereal production in 1987/88 is now estimated at 3.1 million tons, 3 percent above earlier forecasts, because of revisions in the spring wheat and summer corn harvests. Wheat production is currently forecast at 686,000 tons, up 7 percent from February's estimate and 15 percent more than the 1986/87 crop. Corn production is now estimated at 870,000 tons, virtually unchanged from the previous year. Rice production continues to be estimated at 1.6 million tons.

Because of the improved prospects for 1987/88 cereal production, the status quo and nutrition-based cereal import requirement estimates have been lowered to 222,000 tons (down 32 percent) and 763,000 tons (down 12 percent), respectively.

The country's financial position remains extremely weak and dependent on foreign assistance. Additional food needs in 1987/88 are lower than previously estimated, but still account for the bulk of estimated cereal import requirements. Status quo additional needs are now estimated at 194,000 tons, down 35 percent, while 735,000 tons (down 10 percent) would be needed to close the nutrition gap. However, transportation and administrative difficulties would likely limit imports to about 200,000 tons.

With favorable weather during the 1988/89 growing season, cereal production is projected to reach 3.4 million tons and allow both estimated cereal import requirements and additional food needs to decline.

#### Nepal basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
----- 1,000 tons -----						Kilos	Percent	
Major cereals								
1980/81	2,824	0	(26)	2,798	0	187	Wheat	10.9
1981/82	2,935	0	(42)	2,893	0	188	Rice	49.5
1982/83	2,464	0	83	2,547	0	162	Corn	19.6
1983/84	3,256	0	(16)	3,240	0	200	Total	80.0
1984/85	3,258	0	(49)	3,209	0	194		
1985/86	3,275	0	25	3,300	0	194		
1986/87	3,046	0	25	3,071	0	176		
1987/88	3,136	0						
1988/89	3,370	0						

#### Import requirements for Nepal

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
----- 1,000 tons -----						
Major cereals						
1987/88	3,136	3,358	3,899	222	763	442
1988/89	3,370	3,442	4,019	72	649	298

#### Financial indicators for Nepal, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
----- Million dollars -----						Percent
1980	293	446	4	196	289	3
1981	278	451	5	233	273	3
1982	250	522	7	163	243	10
1983	275	502	12	123	263	5
1984	302	524	17	68	285	2
1985	328	591	24	104	304	1
1986	363	639	21	95	342	
1987	400	775	25	100	341	3
1988	445	865	40	100	355	3

*Additional food needs to support consumption for Nepal, with stock adjustment and as constrained by maximum absorbable imports*

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	<u>1,000 tons</u>	<u>Million \$</u>	<u>1,000 tons</u>	<u>Million \$</u>	<u>1,000 tons</u>	<u>Million \$</u>
Cereal equivalent Consumption						
1987/88	28	7	194	46	735	173
1988/89	30	7	41	9	619	139
Stock adjustment			0	0	0	0
1987/88			0	0	0	0
1988/89						
Total			194	46	735	173
1987/88			41	9	619	139
Maximum absorbable						
Cereal equivalent			194	46	414	98
1987/88			41	9	267	60
1988/89						

## India

Estimates of the drought-affected 1987/88 cereal harvest have been increased marginally to 117.6 million tons, 12 percent below 1986/87. The 1987/88 rice crop is now estimated at 49 million tons, up 4 percent from the previous assessment because of improved winter growing conditions, but still the lowest since 1979/80. Production of coarse grains, primarily sorghum, millet, and corn, was dealt the worst setback following a third consecutive year of dry weather in key rainfed producing areas, and continues to be estimated at the lowest since the 1971/72 drought. The wheat and pulse crops harvested during April-May 1987 were officially estimated at 45.6 million tons and 11.7 million tons, respectively, both somewhat below preliminary estimates. The outlook for the spring 1988 wheat crop, most of which will be harvested during April-May, remains in line with the earlier assessment, with the crop now estimated at about 44 million tons. It is anticipated that irrigation has prevented a major production loss despite poor planting moisture and persistent dry weather during most of the growing season. Production of pulses, grown on unirrigated land, is now estimated at 11 million tons, 6 percent below 1987/88 and 18 percent below the 1986/87 record because of dry weather.

Government stocks of wheat and rice dropped sharply to an officially estimated 14.1 million tons by December 31, 1987, including 7.6 million of wheat and 6.5 million of rice. Total stocks were 9.5 million tons below a year earlier and the lowest December level since 1982. Reduced domestic procurement from the drought-reduced 1987/88 rice crop, and record distribution of wheat and rice through various channels, including the Public Distribution System (PDS), open market sales, and food-for-work programs, have led to the abrupt decline in stocks. Increased distribution has been highly successful in maintaining the relative stability of domestic food grain prices, but has now drawn wheat and rice stocks substantially below target and is likely to require substantial commercial food grain imports during 1988/89.

Estimates for 1987/88 oilseed harvests also remain near the previous assessment, with total oilseed output affected by dry weather in key producing regions for 3 consecutive years. Peanuts, the major oilseed, were particularly hard hit by the drought and output continues to be estimated at the lowest level since 1972/73. However, prospects for spring 1988 crops of rapeseed, the second major oilseed, and other rabi oilseeds have been bolstered by a combination of high price incentives and adequate rainfall in some areas of central and southern India. Edible oil production is now forecast at 3.02 million tons in 1987/88, 8.5 percent below the poor 1986/87 outturn and 20 percent below the 1984/85 record. Record allocations of imported oil to the vanaspati (hydrogenated oil) industry and the PDS have arrested the sharp rise in domestic edible oil prices evident during late 1987. Improved prospects for rabi oilseed harvests have also eased pressure on domestic prices, and may permit a slower pace for oil imports during the remainder of the year.

Status quo cereal import needs are now estimated at 21.5 million tons for 1987/88, slightly above the earlier assessment because of upward revision of historical consumption data. Nutrition-based import requirements continue to be estimated at about 27 million tons, and continue to reflect a substantial nutritional gap. As in the previous assessment, the standard stock adjustment calculation probably underestimates the amount that stocks can be drawn down (about 5.6 million tons to 18.1 million as of July 1988) without jeopardizing food security. Food price stability is not likely to be severely threatened even if stocks are drawn down by 10 million tons to about 14 million by July 1988. Accounting for stock drawdowns, about 12 million tons of cereal imports would be needed to sustain status quo consumption in 1987/88, and about 17 million would be needed to achieve minimum recommended average caloric requirements. Current official USDA forecasts of actual cereal consumption and trade call for only relatively small amounts of wheat and corn to be imported in 1987/88 because, despite large scale relief efforts, a sharp decline in consumer purchasing power has reduced consumption below status quo levels. However, in order to replenish stocks and maintain distribution levels, substantial food grain imports are likely in 1988/89.

Status quo edible oil import needs continue to be estimated at about 1.8 million tons in 1987/88 and nutrition-based needs at about 1.7 million tons--both in line with the previous assessment. Status quo and nutrition-based estimates of pulse import needs are now estimated at 1.7 million tons and 1.1 million tons, respectively, both up sharply from earlier estimates because of reduced production estimates.

India's balance of payments appears to be weathering the adverse effects of the drought in somewhat better shape than had been expected earlier. A very tight balance of payments position has prompted careful management by Indian policymakers in recent years, and the current situation has benefited from a combination of careful management of drought-related financial costs, improved export performance, and financial assistance from some donors, particularly the World Bank and Japan. New tax measures have helped raise funds for drought relief efforts. Export growth is now expected to be 15-18 percent in both 1987 and 1988, substantially higher than previous forecasts, led by gains in exports of a broad range of manufactures, including garments, gems, leather products, fish products, and iron and steel. Gains in merchandise trade are expected to offset more sluggish gains in worker remittances resulting from slowed economic activity in the Middle East. Although weakened domestic demand will reduce imports of some items, the import bill will continue to rise because of higher oil prices, imports of drought relief supplies, and current indications that recent import liberalization measures will remain in effect despite pressures created by the drought. Although the trade deficit is not expected to widen in 1987 and 1988, an increase in scheduled payments to the IMF and commercial lenders is likely to contribute to some decline in foreign reserves.

Because of the abnormal food import needs caused by the drought, India's capacity to import food commercially is calculated by allocating forecast foreign exchange availability to food imports based on the highest proportion that was spent on commercial imports since 1977. Using this approach, total capacity to import cereals, edible oils, and pulses is estimated at about \$2 billion in 1987 and \$1.6 billion in 1988. Using these import capacity estimates, and allowing for a 10-million-ton drop in cereal stocks instead of the 5.6-million-ton drop generated by the standard stock calculation procedure, 1987 status quo additional food needs are estimated at 1.1 million tons of cereals and 1.4 million tons of pulses. On the same basis, 1987 nutrition-based additional needs are estimated at about 8.4 million tons of cereals and .8 million tons of pulses.

Additional needs during 1988/89 will depend on the spring 1988 wheat and pulse harvests, as well as the fall 1988 crops of rice, coarse grains, and oilseeds. Projections continue to indicate a drop in 1988/89 cereal and edible oil additional needs, assuming a recovery in 1988 fall harvests. Status quo additional needs in 1988/89 are projected at .8 million tons of cereals and 1 million of pulses, while nutrition-based needs are estimated at 2.2 million tons of cereals and 1.8 million of pulses. However, because the bulk of India's cereal imports to compensate for 1987/88 drought losses are expected to be deferred into 1988/89, most additional food needs estimated for both years may need to be allocated to 1988/89.

*India basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
<u>1,000 tons</u>								Kilos
Major cereals								Percent
1980/81	113,810	17,743	(835)	113,126	2,320	168	Wheat	18.5
1981/82	120,949	18,272	1,546	118,347	2,420	172	Rice	33.2
1982/83	112,446	17,000	3,477	112,409	2,420	160	Corn	3.1
1983/84	136,831	18,094	3,085	130,656	2,620	182	Sorghum	5.8
1984/85	135,261	24,734	(161)	127,317	2,620	173	Millet	5.2
1985/86	133,690	29,897	(605)	131,561	2,710	175	Barley	0.7
1986/87	134,041	28,711	(840)	135,422	2,710	177	Pulses	5.8
1987/88	117,605	23,780					Vegetable oil	6.3
1988/89	137,500	23,780					Total	78.7
Vegetable oils								
1980/81	2,668	180	1,293	3,981	0	6		
1981/82	3,392	160	962	4,434	0	6		
1982/83	2,974	80	1,259	4,163	0	6		
1983/84	3,376	150	1,697	4,833	0	7		
1984/85	3,775	390	1,357	5,172	0	7		
1985/86	3,306	350	1,204	4,570	0	6		
1986/87	3,301	290	1,524	4,735	0	6		
1987/88	3,020	380						
1988/89	3,700	380						
Pulses								
1980/81	8,572	0	173	8,595	150	13		
1981/82	10,627	0	128	10,605	150	15		
1982/83	11,507	0	150	11,507	150	16		
1983/84	11,857	0	300	12,057	100	17		
1984/85	12,893	0	200	12,993	100	17		
1985/86	11,962	0	300	12,212	50	16		
1986/87	13,361	0	300	13,611	50	17		
1987/88	11,737	0						
1988/89	11,000	0						

*Import requirements for India*

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
<u>1,000 tons</u>						
Major cereals						
1987/88	117,605	139,084	144,843	21,479	27,238	33,417
1988/89	137,500	141,949	149,818	4,449	12,318	16,507
Vegetable oils						
1987/88	3,020	4,815	4,695	1,795	1,675	2,491
1988/89	3,700	4,914	4,820	1,214	1,120	1,924
Pulses						
1987/88	11,737	13,466	12,879	1,729	1,142	3,036
1988/89	11,000	13,743	13,039	2,743	2,039	4,077

*Financial indicators for India, actual and projected*

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
----- Million dollars -----						
1980	15,150	17,977	1,292	6,858	13,858	5
1981	14,485	17,682	1,377	4,461	13,108	7
1982	14,323	17,236	1,629	4,965	12,694	6
1983	14,983	17,742	2,093	5,847	12,890	11
1984	15,227	18,324	2,335	6,110	12,892	14
1985	15,655	20,920	2,974	6,657	12,681	8
1986	17,123	21,099	3,761	6,729	13,362	
1987	19,300	23,000	4,130	6,500	14,205	14
1988	21,400	25,200	4,800	6,300	14,721	11

*Additional food needs to support consumption for India, with stock adjustment*

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
Cereal equivalent						
Consumption						
1987/88	4,735	845	12,925	2,306	18,443	3,291
1988/89	2,786	475	0	0	6,003	1,025
Stock adjustment						
1987/88			(5,644)	(1,007)	(5,644)	(1,007)
1988/89			0	0	955	163
Total						
1987/88			7,281	1,299	12,799	2,284
1988/89			0	0	6,958	1,187
Vegetable oils						
1987/88	3,702	1,323	0	0	0	0
1988/89	2,806	1,002	0	0	0	0
Pulses						
1987/88	369	147	1,360	541	773	307
1988/89	227	90	1,800	716	1,812	721
Total						
1987/88		2,314		1,840		2,591
1988/89		1,568		716		1,908
Maximum absorbable						
Cereal equivalent						
1987/88			7,281	1,299	10,082	1,799
1988/89			0	0	2,250	384
Vegetable oils						
1987/88			0	0	0	0
1988/89			0	0	0	0
Pulses						
1987/88			1,360	541	773	307
1988/89			1,800	716	1,812	721
Total						
1987/88				1,840		2,106
1988/89				716		1,105

Commercial import capacity surplus to additional food needs in individual commodity groups offsets some additional cereal needs.

## Pakistan

Food grain production estimates for both 1987/88 and 1988/89 are now substantially below the previous assessment. Total 1987/88 output is estimated at 16.2 million tons, down 12 percent from the 1986/87 record, because of severe rain damage to the spring 1987 wheat crop and abnormally dry growing conditions for the 1987/88 rice and corn crops. The 1987 wheat harvest is estimated at 12.2 million tons, 12 percent below the 1986 record, corn production at .85 million tons, down 23 percent, and rice output at 3.2 million tons, down 9 percent. Food grain production is projected to recover only partially to about 17 million tons in 1988/89, primarily because dry weather is expected to lead to another poor wheat crop of only about 12.3 million tons in 1988. Assuming normal monsoon rainfall, 1988/89 harvests of rice and corn are likely to recover. Dry weather reduced pulse production in 1987/88, but high prices and increased plantings are projected to lead to a recovery in 1988/89. Domestic production of oilseeds and oils is primarily driven by cotton, and gains in cotton output are expected to boost edible oil production in both 1987/88 and 1988/89.

Status quo cereal import requirements are estimated at 1.4 million tons in 1987/88, while nutrition-based import needs are estimated at 2.3 million tons--indicating that status quo per capita consumption meets roughly 95 percent of recommended caloric intake. Public and private stocks of food grains, primarily wheat, were estimated at a record 4 million tons at the beginning of 1987/88, indicating that domestic stock drawdowns can meet part of the import requirements. Status quo 1987/88 import requirements for oils and pulses are 624,000 tons and 172,000 tons, respectively. Nutrition-based pulse and oil import needs are somewhat lower because they do not account for recent gains in consumption.

Cereal import needs for 1988/89 are projected at 1.4 million tons using the status quo approach and 2.4 million using the nutrition-based approach, both near the 1987/88 estimates. Preliminary estimates indicate that food grain stocks will be drawn down substantially during 1987/88. As a result, domestic stocks probably will not be sufficient to meet a significant portion of import needs. Edible oil import needs are likely to rise in 1988/89 as population grows faster than production, while pulse import needs are projected to drop if production rebounds.

Pakistan's export performance and outlook for 1987 and 1988 has improved over the previous assessment. Merchandise exports are forecast to surge about 23 percent in 1987 and 8-10 percent in 1988, primarily because of gains in rice, raw cotton, yarns, and textiles. These gains will more than offset declines in worker remittances, a major source of foreign exchange, resulting from slower economic expansion in the Middle East. Export earnings will offset a larger portion of the rising import bill and lead to slower growth in the trade deficit in 1987 and 1988 than projected earlier. However, the still large trade deficit, coupled with a further large increase in scheduled debt service payments, will likely keep the balance of payments tight and foreign reserves low. Increasing resort to foreign borrowing, necessitated in part by weak domestic savings performance, has led to a sharp rise in Pakistan's debt service ratio and could jeopardize future import capacity unless strong export growth is sustained.

Pakistan's 1987/88 status quo and nutrition-based additional food needs continue to be estimated at zero. A reduction of available food grain stocks, combined with a larger allocation of available foreign exchange to food imports, is sufficient to offset estimated food import requirements. Because of the production setback the estimation procedure allocates an historically large share of available foreign exchange to food imports, yielding a commercial import capacity of nearly \$600 million that is sufficient to cover all cereal, edible oil, and pulse imports at expected world prices. For 1988/89, the projections indicate that status quo additional needs will rise to 533,000 tons of cereals, while nutrition-based needs rise to nearly 1 million tons. Additional needs are projected to rise in 1988/89, despite the outlook for somewhat better harvests, because of the likely need to rebuild stocks, and because of inability to divert an historically large share of available foreign exchange to food imports in consecutive years.

*Pakistan basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
----- 1,000 tons -----							Kilos	Percent
Major cereals								
1980/81	14,926	1,248	(843)	13,997	130	166	Wheat	47.2
1981/82	15,833	1,204	(494)	14,394	130	164	Rice	10.5
1982/83	15,754	2,019	(654)	14,636	140	162	Corn	3.3
1983/84	16,766	2,343	(984)	15,183	150	163	Vegetable oils	7.7
1984/85	15,225	2,792	157	15,580	160	163	Pulses	2.2
1985/86	15,631	2,434	535	15,540	170	158	Total	70.9
1986/87	18,519	2,890	(915)	16,184	278	162		
1987/88	16,228	4,032						
1988/89	16,950	4,032						
Vegetable oils								
1980/81	225	75	455	693	0	8		
1981/82	240	62	573	808	0	9		
1982/83	256	67	663	917	0	10		
1983/84	190	69	630	812	0	9		
1984/85	289	77	680	971	0	10		
1985/86	344	75	985	1,084	0	11		
1986/87	363	320	607	1,140	0	11		
1987/88	364	150						
1988/89	370	150						
Pulses								
1980/81	526	0	0	496	30	6		
1981/82	488	0	40	478	50	6		
1982/83	694	0	50	692	52	8		
1983/84	710	0	65	725	50	8		
1984/85	726	0	42	718	50	8		
1985/86	732	0	61	743	50	8		
1986/87	790	0	40	780	50	8		
1987/88	672	0						
1988/89	822	0						

*Import requirements for Pakistan*

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
----- 1,000 tons -----						
Major cereals						
1987/88	16,228	17,637	18,556	1,409	2,328	2,257
1988/89	16,950	18,335	19,313	1,385	2,363	2,255
Vegetable oils						
1987/88	364	988	811	624	447	976
1988/89	370	1,014	832	644	462	1,000
Pulses						
1987/88	672	844	759	172	87	188
1988/89	822	866	796	44	(26)	60

*Financial indicators for Pakistan, actual and projected*

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
----- Million dollars -----						
1980	5,799	6,824	743	1,058	5,056	6
1981	5,595	7,130	985	809	4,610	5
1982	6,618	7,130	922	1,911	5,696	6
1983	6,681	7,681	1,078	1,731	5,603	6
1984	6,107	7,792	1,203	668	4,904	8
1985	6,753	7,987	1,490	979	5,263	10
1986	7,101	7,820	1,758	917	5,343	
1987	7,767	8,731	1,765	900	5,703	10
1988	8,100	9,150	1,917	950	5,877	8

*Additional food needs to support consumption for Pakistan, with stock adjustment*

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
Cereal equivalent						
Consumption						
1987/88	831	128	0	0	0	0
1988/89	298	44	0	0	424	62
Stock adjustment						
1987/88			0	0	0	0
1988/89			536	79	536	79
Total						
1987/88			0	0	0	0
1988/89			533	78	959	141
Vegetable oils						
1987/88	1,290	428	0	0	0	0
1988/89	1,105	367	0	0	0	0
Pulses						
1987/88	88	41	0	0	0	0
1988/89	59	28	0	0	0	0
Total						
1987/88		597		0		0
1988/89		438		78		141
Maximum absorbable						
Cereal equivalent						
1987/88			0	0	0	0
1988/89			533	78	851	125
Vegetable oils						
1987/88			0	0	0	0
1988/89			0	0	0	0
Pulses						
1987/88			0	0	0	0
1988/89			0	0	0	0
Total						
1987/88				0		0
1988/89				78		125

Commercial import capacity surplus to additional food needs in individual commodity groups offsets some additional cereal needs.

## Southeast Asia

### *Southeast Asia basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	----- 1,000 tons -----			Thousand	Kilos
<b>Major cereals</b>					
1980/81	42,590	2,891	5,538	261,797	180
1981/82	46,585	3,858	4,011	267,884	187
1982/83	45,867	4,381	4,058	273,882	185
1983/84	49,912	3,683	4,956	279,852	197
1984/85	52,227	3,452	4,292	286,083	193
1985/86	52,779	4,676	3,431	292,456	191
1986/87	53,818	5,022	3,652	299,091	193
1987/88	53,155	4,621		305,774	
1988/89	53,915	4,621		312,703	

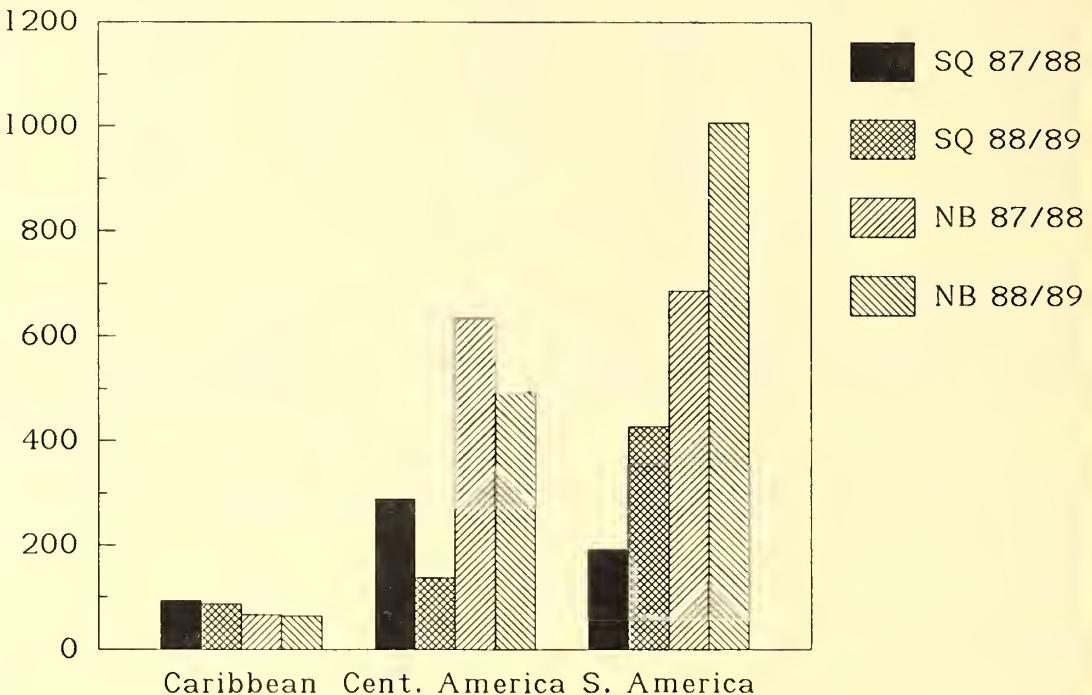
### *Southeast Asia cereal use, additional needs to support consumption, and stock adjustment*

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent consumption	1,000 tons	1,000 tons	1,000 tons	Million \$	1,000 tons	Million \$
1987/88	63,816	61,087	1,032	180	875	182
1988/89	65,258	62,415	1,039	165	898	172
Stock adjustment			1	0	1	0
1987/88			297	52	42	10
1988/89						
Total			1,034	180	876	183
1987/88			1,336	218	940	182
1988/89						
Maximum absorbable						
Cereal equivalent			1,034	180	876	183
1987/88			1,336	218	940	182
1988/89						

**Latin America**

**LATIN AMERICA**  
Additional Cereal Needs, 87/88-88/89\*

Thousand tons



\*Cereal equivalent exceeding production and imports, with stock adjustment.

## Caribbean

### Caribbean basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
----- 1,000 tons -----					
Major cereals				Thousand	Kilos
1980/81	852	99	979	12,947	139
1981/82	711	131	896	13,144	123
1982/83	763	115	935	13,345	125
1983/84	752	139	964	13,542	130
1984/85	801	95	1,062	13,680	138
1985/86	666	73	1,149	13,850	131
1986/87	736	74	1,075	14,030	
1987/88	751	74		14,210	
1988/89	754	74		14,390	

Caribbean cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent consumption						
1987/88	2,262	2,214	87	11	61	8
1988/89	2,293	2,244	87	11	64	8
Stock adjustment						
1987/88			6	1	6	1
1988/89			0	0	0	0
Total						
1987/88			93	12	66	8
1988/89			87	11	64	8
Maximum absorbable						
Cereal equivalent						
1987/88			93	12	66	8
1988/89			87	11	60	7

## Central America

### *Central America basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
----- <u>1,000 tons</u> -----					
Major cereals				<u>Thousand</u>	<u>Kilos</u>
1980/81	2,456	405	708	20,344	156
1981/82	2,670	390	502	20,759	155
1982/83	2,518	334	661	21,327	150
1983/84	2,656	324	672	21,905	149
1984/85	2,840	386	631	22,547	150
1985/86	2,790	476	716	23,230	151
1986/87	2,519	468	862	23,912	142
1987/88	2,794	460		24,606	
1988/89	2,910	460		25,963	

*Central America cereal use, additional food needs to support consumption, and stock adjustment*

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent						
Consumption						
1987/88	3,677	3,923	244	34	589	89
1988/89	3,781	4,041	131	19	476	68
Stock adjustment						
1987/88			45	7	44	6
1988/89			16	3	18	2
Total						
1987/88			289	44	631	95
1988/89			138	20	492	71
Maximum absorbable						
Cereal equivalent						
1987/88			289	54	592	88
1988/89			138	24	439	64

## El Salvador

Estimated 1987/88 cereal production has been increased to 624,000 tons, almost 8 percent above the August 1987 estimate, because drought damage to the winter corn crop was less severe than initially expected. However, the sorghum crop suffered major losses.

Higher estimated output has lowered 1987/88 status quo cereal import requirements 22 percent to 253,000 tons. This estimate, however, is 42,000 tons above actual 1986/87 cereal imports of about 211,000 tons, comprised mostly of wheat. To meet the FAO/WHO recommended minimum caloric intake, import requirements are estimated at 340,000 tons, down 15 percent from previous estimates but still reflecting a considerable nutritional gap.

The economic position of El Salvador continues to be very fragile and heavily dependent on financial assistance from abroad and remittances from Salvadoreans living in the United States. Following a sharp decline in output in the early 1980's, resulting from armed conflict, agrarian reform, and worsening economic conditions in the Central American region, El Salvador experienced an almost 3-percent economic growth in 1987. This growth was mainly on the strength of a recovery of agricultural output and large-scale earthquake-related reconstruction by the private sector. But economic activity and employment have not been restored to the levels that prevailed at the end of the 1970's. Real GDP in 1987 is estimated to be one-fifth lower than in 1978, and real per capita GDP is only about two-thirds of the 1978 level.

El Salvador's balance-of-payments performance has been weak over the last 6 years, reflecting generally declining exports and a steady decrease in capital inflows. Large transfers from the United States have permitted a buildup in the international reserves, but they remain dangerously low. Debt service payments have been maintained at about 20 percent of total exports for 1987 and 1988.

Recent revisions in El Salvador's financial indicators have reduced the estimate of the country's ability to commercially import food. Commercial import capacity in 1987/88 has fallen to \$16 million, down 16 percent from previous estimates. As a result, status quo additional cereal needs, including stock-building, are estimated at 160,000 tons valued at \$24 million, and maximum absorbable nutrition-based additional cereal needs at 247,000 tons valued at \$37 million.

### *El Salvador basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
<u>1,000 tons</u>							<u>Kilos</u>	
<b>Major cereals</b>							<u>Percent</u>	
1980/81	697	98	148	630	199	176	Wheat	8.5
1981/82	664	114	149	643	194	182	Rice	3.4
1982/83	552	90	179	572	193	163	Corn	36.2
1983/84	586	56	226	561	194	157	Sorghum	6.6
1984/85	701	113	140	593	211	163	Dry beans	3.7
1985/86	664	150	153	636	182	160	Total	58.5
1986/87	608	149	234	701	149	162		
1987/88	624	141						
1988/89	655	141						
<b>Pulses</b>								
1980/81	40	9	1	44	0	9		
1981/82	38	6	2	46	0	10		
1982/83	38	0	13	51	0	11		
1983/84	42	0	0	42	0	9		
1984/85	48	0	10	58	0	12		
1985/86	34	0	10	44	0	9		
1986/87	20	0	20	40	0	8		
1987/88	25	0						
1988/89	35	0						

*Import requirements for El Salvador*

Commodity/year	Production	Total use		Import requirements			Maximum absorbable
		Status quo	Nutrition-based	Status quo	Nutrition-based		
<u>1,000 tons</u>							
Major cereals							
1987/88	624	877	964	253	340	370	
1988/89	655	903	994	248	339	368	
Pulses							
1987/88	25	52	53	27	28	48	
1988/89	35	53	56	18	21	40	

*Financial indicators for El Salvador, actual and projected*

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
<u>Million dollars</u>						
1980	1,271	1,289	42	78	1,229	5
1981	970	1,281	48	72	923	5
1982	872	1,196	68	109	804	5
1983	908	1,217	154	160	755	3
1984	954	1,316	194	166	760	2
1985	951	1,324	196	180	755	8
1986	1,009	1,401	182	170	827	
1987	950	1,250	198	150	741	4
1988	1,025	1,370	200	150	799	4

*Additional food needs to support consumption for El Salvador, with stock adjustment and as constrained by maximum absorbable imports*

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
Cereal equivalent						
Consumption						
1987/88	104	16	149	22	237	36
1988/89	117	17	131	19	222	32
Stock adjustment						
1987/88			11	2	11	2
1988/89			5	1	5	1
Total						
1987/88			160	24	247	37
1988/89			136	20	226	33
Pulses						
1987/88	1	1	26	14	27	14
1988/89	1	1	17	9	20	10
Total						
1987/88		16		38		52
1988/89		17		29		43
Maximum absorbable						
Cereal equivalent						
1987/88			160	24	247	37
1988/89			136	20	226	33
Pulses						
1987/88			26	14	27	14
1988/89			17	9	20	10
Total						
1987/88				38		52
1988/89				29		43

## Guatemala

Guatemala's actual and forecast food grain production is expected to be slightly lower than previous estimates. A 9-percent decline in grain output is projected for 1987/88, mostly because of a reduced corn harvest. Guatemala has been importing corn periodically since the early 70's, importing as little as 2,000 tons and as much as 130,000 tons depending on domestic production levels.

Assuming normal weather, food grain output is projected to rise by 8 percent in 1988/89. Corn and rice are expected to benefit from higher producer prices. The Government of Guatemala has pursued a policy of self-sufficiency in staple grains, but the present yields and increasing consumption trends have prevented this from becoming a reality.

Status quo cereal import requirements for 1987/88 and 1988/89 are estimated at 227,000 tons and 167,000 tons, respectively. Nutrition-based cereal import needs are higher at 384,000 tons for 1987/88 and 338,000 tons for 1988/89.

Guatemala's balance-of-payments position is projected to remain tight during 1988 and 1989. Imports are projected to exceed exports by at least 17 percent in 1988 and by 22 percent in 1989. In addition, debt service payments are projected to rise over the next 2 years. Also, foreign exchange available to commercially import major cereals and pulses is very limited.

After revisions in Guatemala's financial indicators, 1987/88 status quo additional food needs are estimated at 75,000 tons, valued at \$12 million. Nutrition-based additional needs are estimated higher at 232,000 tons, valued at \$36 million.

*Guatemala basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
			<u>1,000 tons</u>			Kilos		
Major cereals								
1980/81	944	152	193	1,008	163	165	Wheat	9.6
1981/82	1,034	118	80	964	179	154	Corn	45.7
1982/83	1,141	89	79	979	175	151	Dry beans	4.4
1983/84	1,099	155	102	1,013	203	155	Total	59.7
1984/85	1,144	140	141	1,069	221	160		
1985/86	1,149	135	155	1,078	223	156		
1986/87	966	138	248	989	225	142		
1987/88	1,145	138						
1988/89	1,245	138						
Pulses								
1980/81	58	10	18	86	0	12		
1981/82	84	0	6	88	0	12		
1982/83	89	2	0	90	0	12		
1983/84	85	1	6	92	0	12		
1984/85	95	0	4	99	0	12		
1985/86	100	0	4	104	0	13		
1986/87	50	0	20	70	0	8		
1987/88	65	0						
1988/89	75	0						

*Import requirements for Guatemala*

Commodity/year	Production	Total use		Import requirements				
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable		
		<u>1,000 tons</u>						
Major cereals								
1987/88		1,145	1,372	1,529	227	384	368	
1988/89		1,245	1,412	1,583	167	338	312	
Pulses								
1987/88		65	106	100	41	35	55	
1988/89		75	110	104	35	29	48	

*Financial indicators for Guatemala, actual and projected*

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
			<u>Million dollars</u>			
1980	1,834	2,107	45	445	1,789	3
1981	1,526	2,190	60	150	1,466	4
1982	1,312	1,774	103	112	1,210	4
1983	1,205	1,460	146	210	1,059	4
1984	1,261	1,667	194	274	1,067	5
1985	1,191	1,457	257	301	934	6
1986	1,203	1,295	281	362	922	
1987	1,171	1,370	301	288	891	5
1988	1,230	1,500	300	350	987	5

*Additional food needs to support consumption for Guatemala, with stock adjustment and as constrained by maximum absorbable imports*

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
Cereal equivalent						
Consumption						
1987/88	152	23	75	12	232	36
1988/89	176	26	0	0	162	24
Stock adjustment						
1987/88			27	4	27	4
1988/89			11	2	11	2
Total						
1987/88			103	16	259	40
1988/89			2	0	173	25
Pulses						
1987/88	1	0	41	29	34	24
1988/89	1	0	32	22	28	20
Total						
1987/88		24		44		64
1988/89		26		23		45
Maximum absorbable						
Cereal equivalent						
1987/88			103	16	244	37
1988/89			2	0	147	22
Pulses						
1987/88			41	29	34	24
1988/89			32	22	28	20
Total						
1987/88				44		61
1988/89				23		41

## South America

### *South America basic food data*

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
----- 1,000 tons -----			Thousand		Kilos
Major cereals					
1980/81	3,898	1,016	2,589	55,803	116
1981/82	4,452	1,056	2,552	57,032	122
1982/83	4,486	1,089	2,496	58,319	121
1983/84	4,056	1,037	2,889	59,657	119
1984/85	4,779	864	2,367	61,046	114
1985/86	4,546	1,049	2,639	62,486	114
1986/87	4,464	1,081	3,119	63,955	119
1987/88	4,897	1,041		63,955	
1988/89	5,210	1,041		66,075	

### *South America cereal use, additional food needs to support consumption, and stock adjustment*

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
Cereal equivalent consumption						
1987/88	10,392	10,420	192	33	628	97
1988/89	10,744	10,778	356	54	937	133
Stock adjustment						
1987/88			0	0	57	7
1988/89			70	9	70	9
Total						
1987/88			192	33	685	104
1988/89			427	63	1,007	142
Maximum absorbable						
Cereal equivalent						
1987/88			192	33	546	82
1988/89			427	63	861	120

## **GLOSSARY OF TERMS**

Status quo	A measure of per capita food availability in recent years
Nutrition-based	Per capita food availability sufficient to meet internationally accepted minimum caloric standards
Cereal equivalent	Cereal required to meet both cereal shortfalls and cereal equivalent
Import requirement	Imports necessary to achieve either status quo or nutrition-based food availability, including both commercial and concessional food shipments
Tons	Metric tons
Dollars	US dollars unless otherwise specified
GNP	Gross national product
GDP	Gross domestic product

**APPENDIX A**  
*Country Cereal Needs*

Country/year	Import requirements	Commercial import capacity	Status quo food needs	Nutrition based food needs
1,000 tons				
<b>North Africa</b>				
Egypt				
1987/88	8,688	6,711	2,466	0
1988/89	8,893	7,359	1,603	0
Morocco				
1987/88	2,714	2,488	149	0
1987/88	1,738	2,306	0	0
Tunisia				
1987/88	524	1,170	0	0
1988/89	2,094	1,108	989	438
<b>West Africa</b>				
Benin				
1987/88	169	91	58	71
1988/89	79	95	31	73
Burkina				
1987/88	(255)	63	0	0
1988/89	(232)	72	0	71
Cameroon				
1987/88	215	191	24	23
1988/89	230	202	29	22
Cape Verde				
1987/88	73	3	60	33
1988/89	75	3	62	34
Chad				
1987/88	94	3	86	376
1988/89	55	3	52	354
Gambia				
1987/88	46	53	0	0
1988/89	44	54	0	0
Ghana				
1987/88	242	356	0	243
1988/89	145	368	0	253
Guinea				
1987/88	162	112	58	233
1988/89	158	121	38	218
Guinea-Bissau				
1987/88	14	19	1	0
1988/89	10	21	0	0
Liberia				
1987/88	127	86	43	79
1988/89	134	90	45	83
Mali				
1987/88	89	161	0	164
1988/89	69	179	0	156
Mauritania				
1987/88	166	141	25	12
1988/89	194	145	49	34
Niger				
1987/88	346	40	234	369
1988/89	109	42	298	513
Senegal				
1987/88	666	661	67	77
1988/89	656	689	0	0
Sierra Leone				
1987/88	128	76	52	64
1988/89	117	85	32	47
Togo				
1987/88	129	106	23	58
1988/89	128	107	21	58

Note: Status quo and nutrition-based needs include stock adjustment.

*Country Cereal Needs (cont.)*

Country/year	Import requirements	Commercial import capacity	Status quo food needs	Nutrition based food needs
1,000 tons				
<b>Central Africa</b>				
Angola				
1987/88	504	328	176	191
1988/89	490	361	129	147
C. Afr. Rep.				
1987/88	58	28	29	46
1988/89	60	30	30	49
Congo				
1987/88	93	83	10	27
1988/89	95	92	3	21
Eq. Guinea				
1987/88	4	3	1	NA
1988/89	4	3	1	NA
Zaire				
1987/88	403	248	167	250
1988/89	469	262	217	299
<b>East Africa</b>				
Burundi				
1987/88	28	21	8	287
1988/89	32	23	10	296
Djibouti				
1987/88	59	51	10	NA
1988/89	60	55	5	NA
Ethiopia				
1987/88	1,794	179	1,616	3,706
1988/89	1,545	188	2,073	4,251
Kenya				
1987/88	360	137	291	1,140
1988/89	481	138	379	1,242
Rwanda				
1987/88	86	9	77	285
1988/89	90	10	80	294
Somalia				
1987/88	297	140	143	398
1988/89	322	146	169	422
Sudan				
1987/88	1,836	137	678	1,005
1988/89	355	122	233	764
Tanzania				
1987/88	283	132	165	0
1988/89	447	159	297	98
Uganda				
1987/88	(52)	8	0	72
1988/89	(38)	11	0	94

*Country Cereal Needs (cont.)*

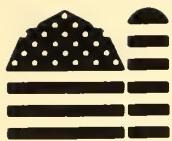
Country/year	Import requirements	Commercial import capacity	Status quo food needs	Nutrition based food needs
1,000 tons				
Southern Africa				
Botswana				
1987/88	165	282	0	0
1988/89	169	266	0	0
Comoros				
1987/88	34	28	6	42
1988/89	34	29	5	42
Lesotho				
1987/88	179	115	64	122
1988/89	180	123	57	117
Madagascar				
1987/88	229	165	64	34
1988/89	290	174	116	76
Malawi				
1987/88	243	24	264	380
1988/89	128	25	135	270
Mauritius				
1987/88	173	369	0	0
1988/89	174	427	0	0
Mozambique				
1987/88	662	108	554	1509
1988/89	628	118	510	1497
Swaziland				
1987/88	55	98	0	0
1988/89	59	100	0	0
Zambia				
1987/88	441	134	166	571
1988/89	320	140	187	626
Zimbabwe				
1987/88	754	332	0	0
1988/89	355	346	392	675
Middle East				
Lebanon				
1987/88	585	262	336	283
1988/89	592	265	328	275
North Yemen				
1987/88	843	485	393	236
1988/89	855	572	285	125
South Yemen				
1987/88	278	273	14	19
1988/89	286	273	24	29

*Country Cereal Needs (cont.)*

Country/year	Import requirements	Commercial import capacity	Status quo food needs	Nutrition based food needs
1,000 tons				
<b>South Asia</b>				
Afghanistan				
1987/88	513	94	419	456
1988/89	654	96	559	569
Bangladesh				
1987/88	3,143	843	2,161	5,203
1988/89	2,516	985	1,234	4,443
India				
1987/88	21,479	4,735	7,281	12,799
1988/89	4,449	2,786	0	6,958
Nepal				
1987/88	222	28	194	735
1988/89	72	30	41	619
Pakistan				
1987/88	1,409	831	0	0
1988/89	1,385	298	533	959
Sri Lanka				
1987/88	1,119	505	468	328
1988/89	877	722	417	296
<b>Southeast Asia</b>				
Cambodia				
1987/88	290	47	245	481
1988/89	218	49	210	466
Indonesia				
1987/88	1,489	2,045	0	0
1988/89	2,329	2,182	291	0
Laos				
1987/88	104	46	58	0
1988/89	(2)	53	0	0
Philippines				
1987/88	599	2,011	0	0
1988/89	(888)	2,321	0	0
Vietnam				
1987/88	1,363	633	731	395
1988/89	1,535	699	835	474

*Country Cereal Needs (cont.)*

Country/year	Import requirements	Commercial import capacity	Status quo food needs	Nutrition based food needs
1,000 tons				
<b>Caribbean</b>				
Dominican R.				
1987/88	462	564	0	0
1988/89	467	591	0	0
Haiti				
1987/88	242	155	93	66
1988/89	253	162	87	66
Jamaica				
1987/88	398	497	0	0
1988/89	401	529	0	0
<b>Central America</b>				
Costa Rica				
1987/88	145	303	0	0
1988/89	175	338	0	0
El Salvador				
1987/88	253	104	160	247
1988/89	248	117	136	226
Guatemala				
1987/88	227	152	103	259
1988/89	167	176	2	173
Honduras				
1987/88	128	107	26	126
1988/89	127	134	0	94
Nicaragua				
1987/88	129	158	0	0
1988/89	155	182	0	0
<b>South America</b>				
Bolivia				
1987/88	353	259	94	296
1988/89	279	277	4	222
Colombia				
1987/88	778	1929	0	0
1988/89	534	2001	0	0
Ecuador				
1987/88	371	252	99	132
1988/89	421	216	191	222
Peru				
1987/88	1346	1480	0	0
1988/89	1664	1494	232	564



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